

## CLAIMS

1. (Currently Amended) An article of manufacture, comprising:  
an energy absorber comprising an extruded plastic first layer having a first plurality of corrugations separated by a hinge from a second plurality of corrugations, wherein the length of the corrugations are ~~corrugation is~~ longer than their ~~its~~-widest cross-sectional width.
2. (Canceled) ~~The article of claim 1, wherein the first layer further comprises a second plurality of corrugations separated from the first plurality of corrugations by a hinge.~~
3. (Currently Amended) The article of claim 1 ~~2~~, wherein individual corrugations of the first plurality are nested within individual corrugations of the second plurality after actuation of the hinge.
4. (Currently Amended) The article of claim ~~4~~ 3, wherein the first and second pluralities of corrugations differ from each other in at least one structural or compositional aspect.
5. (Currently Amended) The article of claim 4, wherein the at least one structural aspect is ~~select~~ selected from height, base width, floor width, average width, cross-sectional shape, base layer thickness, wall thickness, floor thickness or combinations thereof.
6. (Original) The article of claim 5, wherein cross-sectional shape is selected from square waveform, positive draft, negative draft, sinusoidal waveform, open loop shape, closed loop shape or combinations thereof.

7. (Original) The article of claim 5, wherein the differing structural characteristic results in frictional energy dissipating during an impact.
8. (Original) The article of claim 7, wherein the differing structural characteristic is depth.
9. (Original) The article of claim 4, wherein the first and second pluralities differ in composition.
10. (Currently Amended) An article of manufacture, The article of claim 1,  
further comprising:  
an energy absorber comprising an extruded plastic first layer having a first plurality of corrugations and a second layer having a second plurality of corrugations  
and wherein individual corrugations of the first plurality are nested within individual corrugations of the second plurality.
11. (Original) The article of claim 10, wherein the second layer is an extruded plastic second layer.
12. (Original) The article of claim 11, wherein the first and second layers differ from each other in at least one structural or compositional aspect.
13. (Currently Amended) The article of claim 12, wherein the at least one structural aspect is selected from height, base width, floor width, average width, cross-sectional shape, base layer thickness, wall thickness, floor thickness or combinations thereof.
14. (Original) The article of claim 13, wherein cross-sectional shape is selected from square waveform, positive draft, negative draft, sinusoidal waveform, open loop shape, closed loop shape or combinations thereof.

15. (Original) The article of claim 13, wherein the differing structural characteristic results in frictional energy dissipating during an impact.
16. (Original) The article of claim 15, wherein the differing structural characteristic is depth.
17. (Original) The article of claim 12, wherein the first and second layers differ in composition.
18. (Currently Amended) An energy absorbing structure, comprising:  
a ~~plastic~~-energy absorber comprising a first plastic layer having a first plurality of surface features and a second plastic layer with a second plurality of surface features wherein the surface features of one layer are nested within the surface features of the other layer and wherein the first and second layers differ from each other in at least one structural or compositional aspect.
19. (Currently Amended) The article of claim 18 ~~42~~, wherein the at least one structural aspect is ~~select~~ selected from height, base width, floor width, average width, cross-sectional shape, base layer thickness, wall thickness, floor thickness or combinations thereof.
20. (Currently Amended) The article of claim 19 ~~43~~, wherein cross-sectional shape is selected from square waveform, positive draft, negative draft, sinusoidal waveform, open loop shape, closed loop shape or combinations thereof.
21. (Currently Amended) The article of claim 19 ~~43~~, wherein the differing structural characteristic results in frictional energy dissipating during an impact.

22. (Currently Amended) The article of claim 21 ~~45~~, wherein the differing structural characteristic is depth.
23. (Original) The article of claim 18 ~~42~~, wherein the first and second layers differ in composition.
24. (Currently Amended) A method of manufacturing an energy absorber, comprising:  
nesting individual surface features of a first plurality of surface features on a first plastic layer into individual surface features of a second plurality of surface features on a second plastic layer, wherein the first and second layers differ from each other in at least one structural or compositional aspect.
25. (Original) The method of claim 24, further comprising extruding a first layer comprising the first plurality of surface features.
26. (Original) The method of claim 25, further comprising extruding a second layer comprising the second plurality of surface features.
27. (Original) The method of claim 24, further comprising extruding a first layer comprising the first and second plurality of surface features.
28. (Original) The method of claim 27, wherein the nesting step comprises actuating a hinge that separates the first plurality and second plurality of surface features.
29. (Currently Amended) A method of manufacturing an energy absorber, comprising:

extruding a first layer comprising a first ~~plurality of surface features~~ and a second plurality of surface features, wherein the first and second plurality of surface features are separated by a hinge.

30. (Cancelled) ~~The method of claim 29, further comprises extruding a first layer comprising a first and a second plurality of surface features, wherein the first and second plurality of surface features are separated by a hinge.~~

31. (Cancelled) ~~The method of claim 29, further comprising forming a second layer comprising a plurality of surface features.~~

32. (Currently Amended) The method of claim 29 ~~30~~, further comprising nesting individual surface features of the first plurality of surface features into individual surface features of the second plurality of surface features.

33. (Currently Amended) The method of claim 32 ~~31~~, wherein the first and second plurality of surface features are formed with at least one differing structural or compositional aspect.